

REMARKS

In the July 12, 2011 Office Action, claims 15 and 16 are objected to and claims 12-29 stand rejected in view of prior art. No other objections or rejections are made in the Office Action.

Status of Claims and Amendments

In response to the Office Action, Applicants have amended claims 3, 12, 16-18, 21, 22 and 24-26 as indicated above. Also, claims 13-15 and 20 have been cancelled. Claims 1-11 and 30-34 are withdrawn from further consideration. Thus, claims 1-12, 16-19 and 21-34 are pending, with claims 1, 12 and 30-33 being the independent claims. Reexamination and reconsideration of the pending claims are respectfully requested in view of the above amendments and the following comments.

Claim Rejections - 35 U.S.C. §112

On page 2 of the Office Action, claims 15 and 16 are rejected under 35 U.S.C. §112, second paragraph, for having improper antecedent basis. In response, Applicants have amended the claims. Claim 15 has been cancelled. The subject matter of claim 13, to which claim 16 should have originally depended, is now included in claim 12. Therefore, Applicants believe that the claims now comply with 35 U.S.C. §112, second paragraph. Withdrawal of the rejection is respectfully requested.

Rejections - 35 U.S.C. § 102

In paragraph 6 of the Office Action, claims 12-14, 25 and 28 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,006,985 (Ehret). In response, Applicants have amended independent claim 12 to clearly distinguish the prior art of record.

In particular, independent claim 12 has been amended to require a block setting a sleeping schedule for said subject based on said moving schedule and said biological information, the block including a parameter-setting unit for generating parameters based on said moving schedule and said biological information, and a sleep/arousal *inducing* unit setting said sleeping schedule with said parameters. The sleep/arousal inducing unit includes

a device raising a body temperature of said subject and a device relaxing said subject. The block *induces sleep* of said subject at a first time/a second time correspondingly to an eastward route/a westward route of said moving schedule, respectively, said first time being shorter than said second time. Also, the block induces the sleep of said subject by setting the device relaxing said subject to initiate at *a first time* for the eastward route and at *a second, different time* for the westward route. Clearly, this structure is *not* disclosed or suggested by Ehret or any other prior art of record.

Ehret is relied upon in the Office Action as providing a method for *introducing* sleep. Ehret teaches a system which provides a print-out of *recommendations* for overcoming jetlag. These recommendations take the form of daily agendas with recommended eating, sleeping, and exercising schedules (see column 7). As can be understood by column 7 of Ehret, Ehret recommends certain behavior but *does not induce* this behavior. While Ehret may recommend certain sleeping schedules, Ehret does not disclose an actual *device* which *induces* sleep, as now required by independent claim 12. Accordingly, Applicants believe Ehret is deficient with respect to the amended subject matter of claim 12.

Moreover, Ehret discloses the need to provide different recommendations for overcoming jetlag depending on whether the flight is eastward or westward (see column 20). With reference to Figure 22, westward flight steps 2240 and 2250 indicate that light is irradiated for apparently the entire time from breakfast to supper time. On the contrary, in the eastward flight, light is irradiated “until sleep onset” in step 2280. Figure 22 and column 20 disclose *nothing* about inducing sleep in the westward flight. However, claim 12 now requires that the block *induce sleep* of said subject at a first time/a second time correspondingly to an eastward route/a westward route of said moving schedule, respectively, said first time being shorter than said second time. Accordingly, Ehret fails to disclose inducing sleep in the westward route, as now required by claim 12. For this reason as well, Ehret is deficient with respect to the amended subject matter.

It is well settled under U.S. patent law that for a reference to anticipate a claim, the reference must disclose *each* and *every* element of the claim within the reference. Therefore, Applicants respectfully submit that claim 12, as now amended, is not anticipated by the prior art of record. Withdrawal of this rejection is respectfully requested.

Moreover, Applicants believe that dependent claims 25 and 28 are also allowable over the prior art of record in that they depend from independent claim 12, and therefore are allowable for the reasons stated above. Also, these dependent claims are further allowable because they include additional limitations. Applicants respectfully request withdrawal of the rejection.

Rejections - 35 U.S.C. § 103

In paragraph 13 of the Office Action, claims 15, 17, 20 and 21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ehret in view of International Patent Publication No. 2004/075714 (Lustig). In paragraph 16, claims 15, 18 and 19 are rejected as unpatentable over Ehret in view of U.S. Patent No. 5,658,222 (Brown). In paragraph 19, claims 20, 22 and 23 are rejected as unpatentable over Ehret in view of Brown and further in view of U.S. Patent No. 4,600,723 (Short). In paragraph 22, claim 16 is rejected as being unpatentable over Ehret in view of U.S. Patent No. 5,163,426 (Czeisler). In paragraph 25, claims 20 and 24 stand rejected as unpatentable over Ehret in view of U.S. Patent No. 5,395,301 (Russek). Finally, in paragraph 26, claims 26, 27 and 29 are rejected as being unpatentable over Ehret in view of U.S. Patent No. 6,164,787 (Seki). In response, Applicants have amended independent claim 12 as mentioned above.

The additional references used in the §103 rejections do not remedy the deficiencies of Ehret with respect to claim 12. For instance, as discussed above, Ehret fails to disclose inducing sleep in the westward route, as now required by claim 12. Claim 12 requires that the block induce the sleep of said subject by setting the device relaxing said subject to initiate at *a first time* for the eastward route and at *a second, different time* for the westward route. In the Office Action, Lustig, Short, and Russek are all cited for teaching certain methods of relaxation to facilitate falling asleep. In these references, soothing sounds, exercise, and emulating human touch are all suggested as means to relax the individual. Nonetheless, none of these references cures Ehret's failure to induce sleep at a certain time during the westward route. Accordingly, the person of ordinary skill would have had no reason to reach the claimed subject matter after studying the references cited in these rejections. In other words, claim 12 would not have been obvious based on these references.

Under U.S. patent law, the mere fact that the prior art can be modified does *not* make the modification obvious, unless an *apparent reason* exists based on evidence in the record or scientific reasoning for one of ordinary skill in the art to make the modification. See, KSR Int'l Co. v. Teleflex Inc., 127 S.Ct. 1727, 1741 (2007). The KSR Court noted that obviousness cannot be proven merely by showing that the elements of a claimed device were known in the prior art; it must be shown that those of ordinary skill in the art would have had some “apparent reason to combine the known elements in the fashion claimed.” Id. at 1741. The current record lacks any apparent reason, suggestion or expectation of success for combining the patents to create Applicants’ unique arrangement of biological rhythm adjustment.

Moreover, Applicants believe that dependent claims 16-19, 20-24, 26, 27 and 29 are also allowable over the prior art of record in that they depend from independent claim 12, and therefore are allowable for the reasons stated above. Also, these dependent claims are further allowable because they include additional limitations.

Therefore, Applicants respectfully request that these rejections be withdrawn in view of the above comments and amendments.

Prior Art Citation

In the Office Action, additional prior art references were made of record. Applicants believe that these references do not render the claimed invention obvious.

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In view of the foregoing amendment and comments, Applicants respectfully assert that the pending claims are now in condition for allowance. Reexamination and reconsideration of the pending claims are respectfully requested.

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Respectfully submitted,

/Patrick A. Hilsmier/
Patrick A. Hilsmier
Reg. No. 46,034

GLOBAL IP COUNSELORS, LLP
1233 Twentieth Street, NW, Suite 700
Washington, DC 20036
(202)-293-0444
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